



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/905,431	07/13/2001	Yiannis A. Monovoukas	FIB-008	3425

21323 7590 10/02/2003

TESTA, HURWITZ & THIBEAULT, LLP  
HIGH STREET TOWER  
125 HIGH STREET  
BOSTON, MA 02110

EXAMINER

FONTAINE, MONICA A

ART UNIT PAPER NUMBER

1732

DATE MAILED: 10/02/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-5

<b>Office Action Summary</b>	<b>Application No.</b> 09/905,431	<b>Applicant(s)</b> MONOVOUKAS ET AL.	
	<b>Examiner</b> Monica A Fontaine	<b>Art Unit</b> 1732	

-- **Th MAILING DATE of this communication app ars on the cover sheet with th correspondenc address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                           | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2,3</u> . | 6) <input type="checkbox"/> Other:  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6-15, and 17-22 are rejected under 35 U.S.C. 102(a) as being anticipated by Seethamraju et al. (U.S. Patent 6,210,792).

Regarding Claim 1, Seethamraju et al., hereafter “Seethamraju,” show that it is known to have a composite material (Abstract) comprising a mixture of papermaking sludge in granulated form and a polymer composition comprising a synthetic polymer resin (Column 5, lines 49-58).

Regarding Claims 2-4, and 6-11, Seethamraju shows the process as claimed as discussed in the 35 USC 102(a) rejection of Claim 1 above, including a material wherein (Claim 2) the sludge comprises at least 5% by weight of the mixture (Column 13, lines 1-3), (Claim 3) the sludge comprises at least 20% by weight of the mixture (Column 13, lines 1-3), (Claim 4) the sludge comprises at least 50% by weight of the mixture (Column 13, lines 25-43: Experimental Table), (Claim 6) the sludge is highly porous (Column 11, lines 5-16), (Claim 7) the polymer composition is a plastic (Column 5, lines 49-58), (Claim 8) the plastic comprises polyvinyl chloride (Column 5, lines 49-51), (Claim 9) the mixture is amenable to processing by extrusion

Art Unit: 1732

(Column 5, lines 55-58), (Claim 10) the material comprises cellulose fibers (Column 5, lines 53-55), and (Claim 11) the cellulose fibers are in the form of rice hulls (Column 8, lines 1-4).

Regarding Claim 12, Seethamraju shows that it is known to carry out a method of making a composite material (Abstract), the method comprising the steps of combining a papermaking sludge in granulated form with a polymer composition comprising a synthetic polymer resin (Column 5, lines 49-58).

Regarding Claims 13-15, and 17-22, Seethamraju shows the process as claimed as discussed in the 35 USC 102(a) rejection of Claim 12 above, including a method wherein (Claim 13) the sludge comprises at least 5% by weight of the mixture (Column 13, lines 1-3), (Claim 14) the sludge comprises at least 20% by weight of the mixture (Column 13, lines 1-3), (Claim 15) the sludge comprises at least 50% by weight of the mixture (Column 13, lines 25-43: Experimental Table), (Claim 17) the sludge is highly porous (Column 11, lines 5-16), (Claim 18) the polymer composition is a plastic (Column 5, lines 49-58), (Claim 19) the plastic comprises polyvinyl chloride (Column 5, lines 49-51), (Claim 22) the mixture is amenable to processing by extrusion (Column 5, lines 55-58), (Claim 20) the material comprises cellulose fibers (Column 5, lines 53-55), and (Claim 21) the cellulose fibers are in the form of rice hulls (Column 8, lines 1-4).

Claims 1-4, 6-15, and 17-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Deaner et al. (U.S. Patent 5,827,607).

Regarding Claim 1, Deaner et al., hereafter "Deaner," show that it is known to have a composite material (Abstract) comprising a mixture of papermaking sludge in granulated form and a polymer composition comprising a synthetic polymer resin (Column 3, lines 14-21).

Regarding Claims 2-4, and 6-11, Deaner shows the process as claimed as discussed in the 35 USC 102(b) rejection of Claim 1 above, including a material wherein (Claim 2) the sludge comprises at least 5% by weight of the mixture (Column 7, lines 65-67), (Claim 3) the sludge comprises at last 20% by weight of the mixture (Column 7, lines 65-67), (Claim 4) the sludge comprises at least 50% by weight of the mixture (Column 7, lines 65-67), (Claim 6) the sludge is highly porous (Column 5, lines 5-12), (Claim 7) the polymer composition is a plastic (Column 3, lines 14-21), (Claim 8) the plastic comprises polyvinyl chloride (Column 3, lines 14-21), (Claim 9) the mixture is amenable to processing by extrusion (Column 3, lines 18-21), (Claim 10) the material comprises cellulose fibers (Column 6, lines 40-44), and (Claim 11) the cellulose fibers are in the form of rice hulls (Column 6, lines 44-48).

Regarding Claim 12, Deaner shows that it is known to carry out a method of making a composite material (Abstract), the method comprising the steps of combining a papermaking sludge in granulated form with a polymer composition comprising a synthetic polymer resin (Column 3, lines 14-21).

Regarding Claims 13-15, and 17-22, Deaner shows the process as claimed as discussed in the 35 USC 102(b) rejection of Claim 1 above, including a material wherein (Claim 13) the sludge comprises at least 5% by weight of the mixture (Column 7, lines 65-67), (Claim 14) the sludge comprises at last 20% by weight of the mixture (Column 7, lines 65-67), (Claim 15) the sludge comprises at least 50% by weight of the mixture (Column 7, lines 65-67), (Claim 17) the sludge is highly porous (Column 5, lines 5-12), (Claim 18) the polymer composition is a plastic (Column 3, lines 14-21), (Claim 19) the plastic comprises polyvinyl chloride (Column 3, lines 14-21), (Claim 22) the mixture is amenable to processing by extrusion (Column 3, lines 18-21),

Art Unit: 1732

(Claim 20) the material comprises cellulose fibers (Column 6, lines 40-44), and (Claim 21) the cellulose fibers are in the form of rice hulls (Column 6, lines 44-48).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seethamraju, in view of Medoff et al. (U.S. Patent 6,207,729). Seethamraju shows the process as claimed as discussed in the rejection of Claims 1 and 12, respectively, but does not show a composition wherein the sludge comprises more than 50% by weight. Medoff et al., hereafter "Medoff," show that it is known to make a composite material wherein the sludge component comprises at least 70% by weight of the mixture (Column 4, lines 36-40). Medoff and Seethamraju are combinable because they are concerned with a similar technical field, namely, that of making composite materials containing a papermaking component and a resin component. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Medoff's composition percentage in making Seethamraju's material in order to produce a composite material which has the benefits of a higher concentration of a papermaking component.

Claims 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deaner, in view of Medoff. Deaner shows the process as claimed as discussed in the rejection of Claims

Art Unit: 1732

1 and 12, respectively, but does not show a composition wherein the sludge comprises more than 50% by weight. Medoff shows that it is known to make a composite material wherein the sludge component comprises at least 70% by weight of the mixture (Column 4, lines 36-40). Medoff and Deaner are combinable because they are concerned with a similar technical field, namely, that of making composite materials containing a papermaking component and a resin component. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Medoff's composition percentage in making Deaner's material in order to produce a composite material which has the benefits of a higher concentration of a papermaking component.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A Fontaine whose telephone number is 703-305-7239. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Colaianni can be reached on 703-305-5493. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Maf  
September 29, 2003



**MICHAEL COLAIANNI  
PRIMARY EXAMINER**